

Self-Financed STC on RTMSE- 2014, December 10-14, NIT Durgapur

SELF-FINANCED SHORT TERM COURSE
on
Recent Trends in Materials Science and Electronics
(RTMSE-2014)

December 10 -14, 2014



Course Coordinators:
Dr. M. K. Mandal, Dr. S. Sahoo & Prof. A. K. Meikap
Department of Physics
National Institute of Technology Durgapur
Mahatma Gandhi Avenue
Durgapur 713 209

THE INSTITUTE

National Institute of Technology Durgapur (NITD) is a leading technical institute offering undergraduate, postgraduate and doctoral programmes in various disciplines of engineering, technology, science, social science and management. The education system is holistic with equal importance being attached to all-round development of the students. NITD was established as a Regional Engineering College (REC) in 1960 as a joint venture of the Government of India and Government of West Bengal. REC Durgapur was converted to NIT Durgapur under the full administrative and financial control of the Ministry of Human Resource Development of Government of India with a Deemed University status on 3rd July, 2003. Subsequently NITD has been given the status of a University by the UGC Act. The Institute was declared an **Institute of National Importance** by the Government of India on August 15, 2007.

The city of Durgapur is recognized as one of the fastest developing Tier-II cities in the national scenarios. Durgapur is situated at a distance of about 180 KMs from Kolkata. It is located right on the major railway and expressway (NH-2) connecting Kolkata to Delhi and Durgapur can be reached from Kolkata (and vice versa) in ~ 2 hrs. 30 mins.

THE DEPARTMENT

Department of Physics of NIT Durgapur is one of the oldest and leading Departments in terms of research activities and sponsored projects. The Department, over the years, has successfully completed a number of MHRD, AICTE, DAE, CSIR and DST Research and Development projects as well as a number of sponsored projects. A good number of Ph.D. degrees have been awarded under the supervision of the faculty members of the Department and a number of students are working at present for their Ph.D. degrees. Theoretical and experimental investigations are being carried out in the frontier areas like Nanoscience, Carbon Nanotubes and Graphene, Nanophotonics, Nonlinear Optics, Conducting Polymers, Nanocomposites and Thin Films, Magnetic Ferrite Materials, Nonlinear Dynamics, Chaos & Cryptography, High Energy Physics etc. The Department of Physics offers basic courses in Engineering Physics, Semiconductor Physics, Nuclear Reactor Physics etc. The Department also offers M.Sc. (Physics) and M. Tech. (Advanced Materials Science and Technology) courses. Many students who have received their M. Tech degrees from this Department are serving now in different Institutes of higher learning in India.

ABOUT THE SHORT TERM COURSE RTMSE-2014

In recent years, materials science and electronics have become the most important and exciting forefront fields in science and technology. They show great promise for providing us in the near future with many breakthroughs that will change the technological advances in wide range of applications. Nanostructured materials may be defined as those materials whose structural elements- clusters, crystallites or molecules—have dimensions in the 1 to 100 nm range. The explosion in both academic and industrial interest in these materials over the past decade arises from the remarkable variations in fundamental electrical, optical and magnetic properties that occur as one progresses from an ‘infinitely extended’ solid to a particle of material consisting of a countable number of atoms. This short term course will give a forum to discuss in details, recent advances in the synthesis and investigation of nanostructured materials, focusing on the novel size-dependent physics and chemistry that results when electrons are confined within nanoscale semiconductor and metal clusters and colloids. Carbon-based nanomaterials and nanostructures including fullerenes, graphene and nanotubes play an increasingly pervasive role in nanoscale science and technology and are thus described in some depth. Current nanodevice fabrication methods and the future prospects for nanostructured materials and nanodevices will also be discussed. These materials are the key components for smart electronic devices, which enable us to communicate to any person at any time in the globe. This communication technology is fully related to electronic circuits and devices.

In this light, the objectives of the present short term course is to bring researchers and technocrats from different parts of our country to a common gathering and share the recent developments of materials, electronic circuits and devices. More specifically, the learner will be trained by hand on practices of material preparation, characterization and circuit design, data analysis, etc.

TOPICS TO BE COVERED

Nanomaterials & nanocomposites, Photonics materials, Carbon based material, Graphene, Multiferroics, State of the art characterization techniques, Chaos and Cryptography, etc.

RESOURCE PERSONS

The resource person constitutes experts/senior faculty members from NIT Durgapur and various guest speakers from other reputed institutions.

Who Should Attend?

Research Scholars, PG Student, Faculty Members, Scientists, Engineers, Technicians, Technical Staff Members.

Registration fee Rs. 5000/- per candidate

Registration fee includes study/lecture materials, refreshment and lunch for 5 days during the course.

Organizing Committee

Patron: Prof. T. Kumar, Director, NIT Durgapur

Advisory Committee:

Prof. P. P. Gupta, Dean (R&C)

Prof. G. Sanyal, Dean (FW)

Col. (Retd.) P. S. Sandhu (Registrar)

Coordinators:

Dr. M. K. Mandal

Dr. S. Sahoo

Prof. A. K. Meikap

Members:

Prof. P. Kumbhakar

Dr. A. K. Chakraborty

Dr. S. Basu

Dr. H. Chaudhuri

Dr. A. Mondal

REGISTRATION FORM
Self-Financed Short Term Course on
Recent Trends in Materials Science and Electronics (RTMSE-2014)
December 10 -14, 2014

Department of Physics, National Institute of Technology, Durgapur
M.G. Avenue, Durgapur – 723109, West Bengal, India

1. Name: -----
2. Designation & Affiliation: -----
3. Male/Female:-----
4. Mailing Address:-----
5. Telephone No. : _____ (R)_____ (O), _____ (M)
6. E-mail ID : -----
7. Highest Academic Qualification:-----
8. Working Experience (In nos. of Years): -----
9. Accommodation required* (Y/N):-----
10. Registration fees: DD/Cheque No./Account Transfer Ref./ _____
Date _____ Amount _____

(DD/Cheque should be drawn in favor of “NITD-PHYSICS-SAFM-2013”, payable at Durgapur;
Account No: 33195988025, IFSC Code:SBIN0002108)

Place: _____

Signature of the Applicant

Date: _____

Signature and Seal of the Head of the Department/Institute

CORRESPONDING ADDRESS

Department of Physics, National Institute of Technology,
M. G. Avenue, Durgapur – 713209, West Bengal, India.

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Phone : +91 9434788060 (M), +91 9434788061, +91 9434788050 (M)

Please send the completed application form on or before 5th December 2014.